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10/698,438

11/03/2003

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EXAMINER

CHANG, VICTOR S

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/698,438
Filing Date: November 03, 2003
Appellant(s): KII ET AL.

Kaiko K. Takagi
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 6/12/2009 appealing from the Office action mailed 10/22/2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

JP 10-183085

Yomomoto

7-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

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I. Claims 1, 2, 4, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 10-183085 [translation, see IDS filed 8/30/2005].

JP '085 relates to a heat resistant adhesive adhered on a foam (porous) substrate [abstract; 0001]. The adhesive is a polymer comprising monomers including carboxyl group containing acrylic acid, etc. [0017]. The adhesive is crosslinkable with polyfunctional isocyanate crosslinking agent [0010-0011 and 0029]. The amount of crosslinking agent is in the range of 0.01-0.5 wt% to avoid gel fraction exceeding 50% [0030]. The glass transition temperature of the acrylic acid containing adhesive includes -30°C [0014]. Useful porous substrates include polymer foams and nonwoven [0052].

For claims 1, 2, 4 6 and 8, the term “partially crosslinked” is interpreted as a polymeric material in which not all the crosslinkable functional groups have been reacted with crosslinking agent. JP '085 anticipates the term “partially crosslinked” in claim 1, because the amount of crosslinking agent is range of 0.01-0.5 wt% to avoid gel fraction exceeding 50%, i.e., less than fully gelled or fully crosslinked by crosslinking agent. Regarding the contemplated end use in the preamble, it has not been given patentable weight, because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951).

Regarding the transitional term “consisting essentially of”, absence of a clear indication of basic and novel characteristics, the transitional term “consisting essentially of” is construed as equivalent to “comprising.” If applicant contends that additional steps or materials in the prior art are excluded by the recitation of “consisting essentially of,” applicant has the burden of

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showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention. See MPEP § 2111.03. Finally, applicants' declaration filed 8/22/2008 has been carefully considered. It is noted that the Declaration compares experimental results of batteries prepared with electrolytes with or without tackifiers, i.e., the tackifiers are dissolved directly in the battery electrolytes, and none of the batteries are prepared using adhesive to bond the separator to electrodes. Since JP '085 incorporates tackifier in the adhesive composition, the composition of the components used in the experiments in the declaration are clearly different from the prior art, and fails to mimic the relied upon prior art. Absent any evidence that the tackifier incorporated in the adhesive composition of JP '085 would necessarily be detrimental to the end use, the declaration is deficient, and immaterial to the patentability of the claimed invention.

II. Claim 7 rejected under 35 U.S.C. 103(a) as being unpatentable over JP 10-183085
[translation in IDS filed 8/30/2005].

The teachings of JP '085 are again relied upon as set forth above.

For claim 7, JP '085 is silent about the supporting ratio (surface coverage ratio) of the adhesive over the substrate. However, the Official notice that "reduced adhesive surface coverage is common and well known, motivated by the desire to adjust the amount of adhesiveness and/or a reduced cost" has been taken as admitted prior art. It would have been obvious to one of ordinary skill in the art of adhesive to modify the invention of JP '085 accordingly.

(10) Response to Argument

Applicants argue at pages 8-9:

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“Batteries were prepared using an electrolyte containing a tackifier and batteries were prepared using an electrolyte that did not containing a tackifier. The batteries using electrolytes containing a tackifier exhibited a faster degradation in discharge capacity as compared to a battery using an electrolyte having no tackifier. Based on this evidence, which can be extrapolated to the claimed battery separator, not only is it unsuitable to use a tackifier in the battery, but also to use a tackifier in the adhesive for a battery separator.”

However, absent any evidence that the tackifier incorporated in the adhesive composition of JP ‘085 would necessarily be detrimental to the end use, applicants’ “extrapolated” argument based on the declaration is deficient and immaterial to the patentability of the claimed invention.

Applicants argue at page 10:

“it is by the phrase "battery separator" in the present claims that it can be known that the subject matter defined by the claims is comprised as a battery separator and that every union of an adhesive layer and porous film is not a battery separator.”

However, the contemplated end use in the preamble has not been given patentable weight, because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951). Further, applicants have provided no evidence whatsoever that the relied upon prior art is unusable in a battery as a separator. Furthermore, applicants’ declaration appears to admit that the porous substrate taught by JP ‘085 is useful for battery use, despite the somewhat inferior results are caused by improperly dissolving tackifiers in electrolytes directly.

Applicants argue at pages 9-10:

“It is respectfully submitted that Appellants have continued to point out the errors in the Examiner’s Official Notice. The Examiner simply states "that reduced adhesive surface coverage is common and well known, motivated by the desire to adjust the amount of adhesiveness and/or a reduced cost". Appellants submit that, with respect to the function

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of a battery, it is preferable that the supporting ratio of an adhesive is lower, but rather the contrary is preferable when adhesion to a battery is considered. Thus, the Examiner's statement that reduced surface coverage is common and well known motivated by the desire to adjust the amount of adhesiveness and/or a reduced cost is in error since it is overbroad and generalized."

However, applicants' statement "but rather the contrary is preferable when adhesion to a battery is considered" is not understood. In view of the apparent intent of claimed invention to bond separator to electrode [see abstract of instant application], the term "adhesion to a battery" is interpreted as "adhesion to an electrode". In essence, applicants appear to be arguing that a good balance between "function of a battery" and "adhesion to an electrode" must be considered when determining the supporting ratio (adhesive coverage ratio). In response to the argument, applicants are reminded that claim 7 of instant application recites:

"wherein the partially crosslinked adhesive is supported on the porous film substrate at a supporting ratio in the range of from 5 to 95%" (emphasis added).

Clearly, claim 7 recites an extremely broad range of supporting ratio (surface coverage ratio), it does not exclude either low end (e.g., 5%) or high end (e.g., 95%) adhesive surface coverage ratio, and the claimed limitation is incommensurate with applicant's argument that balanced properties required by the claimed invention, because a good balance between the abovementioned properties would have reasonably inferred a narrow workable range of adhesive coverage ratio. For the same reason, it is unseen how the broad range of adhesive coverage of the claimed invention would have excluded the Official notice "reduced adhesive surface coverage is common and well known, motivated by the desire to adjust the amount of adhesiveness and/or a reduced cost". Applicants' argument is unpersuasive.

(11) Related Proceeding(s) Appendix

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No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Victor S Chang/

Primary Examiner, Art Unit 1794

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Supervisory Patent Examiner, Art Unit 1794